

CHAPTER 2.9.2.

AMERICAN FOULBROOD OF HONEY BEES

Article 2.9.2.1.

For the purposes of this chapter, American foulbrood is a disease of the larval and pupal stages of the honey bee *Apis mellifera* and other *Apis* spp., and occurs in most countries where such bees are kept. *Paenibacillus larvae subsp. larvae*, the causative organism, is a bacterium that can produce over one billion spores in each infected larva. The spores are very long-living and extremely resistant to heat and chemical agents, and only the spores are capable of inducing the disease.

Combs of infected apiaries may show distinctive clinical signs which can allow the disease to be diagnosed in the field. However, subclinical infections are common and require laboratory diagnosis.

For the purposes of this *Terrestrial Code*, the *incubation period* for American foulbrood shall be 15 days (not including the wintering period which may vary according to country).

Standards for diagnostic tests are described in the *Terrestrial Manual*.

Article 2.9.2.2.

The American foulbrood status of a country or zone/compartiment can only be determined after considering the following criteria:

- 1) a risk assessment has been conducted, identifying all potential factors for American foulbrood occurrence and their historic perspective;
- 2) American foulbrood should be notifiable in the whole country or zone/compartiment and all clinical signs suggestive of American foulbrood should be subjected to field and/or laboratory investigations;
- 3) an on-going awareness programme should be in place to encourage reporting of all cases suggestive of American foulbrood;
- 4) the *Veterinary Administration* or other competent authority with responsibility for the health of honey bees should have current knowledge of, and authority over, all domesticated apiaries in the country.

Article 2.9.2.3.

Country or zone/compartiment free from American foulbrood

- 1) Historically free status

A country or zone/compartiment may be considered free from the disease after conducting a risk assessment as referred to in Article 2.9.2.2. but without formally applying a specific surveillance programme (historical freedom) if the country or zone/compartiment complies with the provisions of Article 3.8.1.2.

- 2) Free status as a result of an eradication programme

A country or zone/compartiment which does not meet the conditions of point 1) above may be considered free from American foulbrood after conducting a risk assessment as referred to

in Article 2.9.2.2. and when:

Appendix XX (contd)

- a) the *Veterinary Administration* or other competent authority with responsibility for the health of honey bees has current knowledge of, and authority over, all domesticated apiaries existing in the country or zone/compartiment;
- b) American foulbrood is notifiable in the whole country or zone/compartiment, and any clinical cases suggestive of American foulbrood are subjected to field and/or laboratory investigations;
- c) for the 5 years following the last reported isolation of the American foulbrood agent, an annual survey supervised by the *Veterinary Administration*, with negative results, have been carried out on a representative sample of apiaries in the country or zone/compartiment to provide a confidence level of at least 95% of detecting American foulbrood if at least 1% of the apiaries were infected at a within-apiary prevalence rate of at least 5% of the hives; such surveys may be targeted towards areas with the last reported isolation of the American foulbrood agent;
- d) to maintain free status, an annual survey supervised by the *Veterinary Administration*, with negative results, is carried out on a representative sample of hives in the country or zone/compartiment to indicate that there has been no new isolations; such surveys may be targeted towards areas with a higher likelihood of isolation;
- e) there is no self-sustaining feral population of *A. mellifera* or other possible host species in the country or zone/compartiment;
- f) all equipment associated with previously infected apiaries has been sterilised or destroyed;
- g) the importation of the *commodities* listed in this Chapter into the country or zone/compartiment is carried out in conformity with the recommendations of this Chapter.

Article 2.9.2.4.

Regardless of the American foulbrood status of the *exporting country*, *Veterinary Administrations* should authorise without restriction the import or transit through their territory of honey bee semen and honey bee venom.

Article 2.9.2.5.

Veterinary Administrations of *importing countries* should require:

for live queen honey bees, worker bees and drones with or without associated brood combs

the presentation of an *international veterinary certificate* attesting that the bees come from a country or zone/compartiment officially free from American foulbrood.

Article 2.9.2.6.

Veterinary Administrations of *importing countries* should require:

for eggs, larvae and pupae of honey bees

the presentation of an *international veterinary certificate* attesting that the products:

- 1) were sourced from a free country or zone/compartment; or
- 2) have been isolated from queens in a *quarantine station*.

Article 2.9.2.7.

Veterinary Administrations of importing countries should require:

for used equipment associated with beekeeping

the presentation of an *international veterinary certificate* attesting that the equipment was sterilised under the supervision of the *Veterinary Authority* by either immersion in 1% sodium hypochlorite for at least 30 minutes (suitable only for non-porous materials such as plastic and metal), gamma irradiation using a cobalt-60 source at a dose rate of 10 kGy, or processing to ensure the destruction of both bacillary and spore forms of *P. larvae larvae*, in conformity with one of the procedures referred to in Appendix XXX (under study).

Article 2.9.2.8.

Veterinary Administrations of importing countries officially free from American foulbrood should require:

for honey, honey bee-collected pollen, beeswax, propolis and royal jelly

the presentation of an *international veterinary certificate* attesting that the products:

- 1) were collected in a country or zone/compartment free from American foulbrood; or
- 2) have been processed to ensure the destruction of both bacillary and spore forms of *P. larvae larvae*, in conformity with one of the procedures referred to in Appendix XXX (under study).